COMBAT SUPPORT DOMAIN ANNEX

CS.1 DOMAIN OVERVIEW

CS.1.1 PURPOSE

The Combat Support Domain Annex was developed to help Combat Support Elements migrate toward a common technical architecture. This technical architecture will enable the entire DoD community to understand the nuances of the Combat Support community. The goal is to have the rest of DoD community communicate with the Combat Support Elements and either adopt their practices or work to eliminate the differences.

CS.1.2 BACKGROUND

There are numerous information technology services that support Warfighter activities. These services need to be made interoperable with the rest of the DoD community.

CS.1.3 DOMAIN DESCRIPTION

The Combat Support domain addresses those specific elements necessary for the production, use, or exchange of information within and among systems supporting personnel, logistics, and other functions required to maintain operations or combat (see Figure CS-1). The Combat Support domain consists of automated systems that perform combat service support and administrative business functions, such as acquisition, finance, human resources management, legal, logistics, transportation and medical functions.

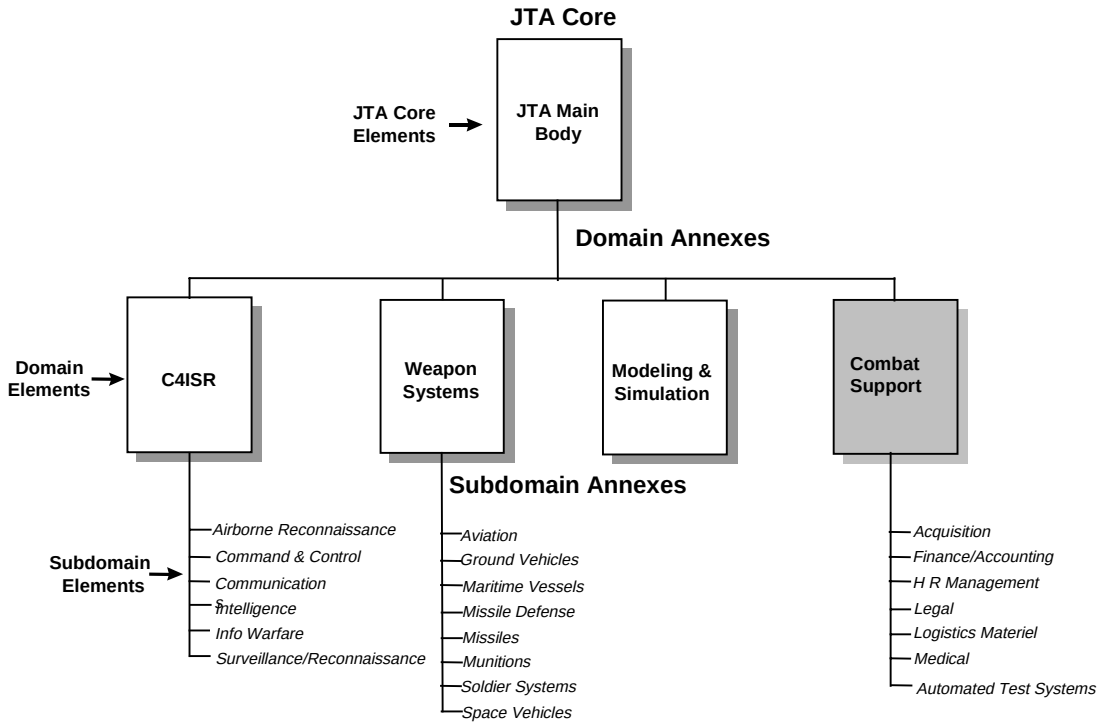

Figure CS-1 Notional JTA Hierarchy

CS.1.4 SCOPE AND APPLICABILITY

The Combat Support Domain Annex identifies standards applicable to DoD Combat Support Elements, e.g., Logistics, EDI, CALS, Medical, Transportation.

CS.1.5 TECHNICAL REFERENCE MODEL

This domain uses the Technical Reference Model (DoD TRM) cited in Section 2.1.3. of the JTA as its framework. Combat Support Application Platform Entity service areas are addressed in Section CS.2 as Additions to the JTA Core. Additional Application Software Entity service areas required to support Combat Support domain systems are addressed in Section CS.3 as Domain Specific Service Areas.

CS.1.6 ANNEX ORGANIZATION

The Combat Support Domain Annex consists of three sections. Section CS.1 contains the overview, Section CS.2 contains those information technology standards that are additions to the standards contained in the core, and Section CS.3 is reserved for those mandates for combat support that are domain specific because they do not map directly to the core service areas.

CS.2 ADDITIONS TO JTA CORE

CS.2.1 INTRODUCTION

The Combat Support domain embraces the principles established in Section 2 of the JTA. Only those paragraphs from the core that have additions are included below.

CS.2.2 INFORMATION PROCESSING STANDARDS

CS.2.2.1 Document Interchange

CALS has developed a set of standards that apply to this service area. CALS SGML profiles the ISO standard (8879) by selecting a particular Document Type Definition (DTD) and other parameters that help standardize the development of technical manuals for DoD. CALS also developed a handbook for applying CALS SGML (MIL-HDBK-28001, 30 June 1995). Although HTML is also a subset of SGML, it is not sufficiently robust enough for TM development. [XML may replace both CALS SGML and HTML in the future.] CALS also has a standard for archiving documents (1840C). The mandated standards for the CALS Document Interchange BSA are:

- MIL-PRF-28001C, Markup Requirements and Generic Style Specification for Electronic Printed Output and Exchange of Text. (CALS SGML), 2 May 1997.
- MIL-STD-1840C, Automated Interchange of Technical Information (AITI), 26 June 1997.

CS.2.2.2 Graphics Data Interchange

CALS has developed a metadata standard which profiles the ISO CGM standard (8632). The latest FIPS 128-2 also profiles the CGM ISO standard and incorporates CALS CGM (see 2.2.2.2.1.4.2). There is also a CALS Raster Standard that puts raster graphics in a binary format. The mandated standards for the CALS Graphics Data Interchange BSA are:

- ISO 8632 as profiled by MIL-PRF-28003A.
- MIL-PRF-28002C, Requirements for Raster Graphics Representation in Binary Format, 30 September 1997.

The Medical Community has developed a standard for digital image transfer. The following mandatory standard applies to the Medical Imagery Data Interchange BSA:

- NEMA/ACR DICOM V3.0, parts 1-12, Digital Imaging and Communication in Medicine, 1993.

CS.2.2.3 Product Data Interchange

CALS has developed a standard that profiles the IGES standard for Engineering Drawings. IGES is used for CAD/CAM applications. The latest FIPS also profiles IGES and incorporates CALS IGES. CALS STEP is an international standard, which depicts products in three dimensions. MIL-STD-2549 was developed to replace MIL-STD-973, Configuration Management. The AITI (MIL-STD-1840C) also has formats for product data archiving. The Bar Code used by DoD is documented in AIM BC1 “Uniform Symbology specification Code 39.” Users are cautioned to evaluate this document for their particular application before citing it as a replacement document of MIL-STD-1189B. The mandatory standards for the Product Data Interchange BSA are:

- FIPS PUB 177-1, IGES, adopts CALS IGES and ANSI/US PRO-100-1993, V5.2, 23 April 1996.
- MIL-PRF-28000A w/AMD 1, Digital Representation for Communications of Product Data: IGES Application Subsets and IGES Application Protocols, 14 December 1992.
- ISO/IEC 10303-1:1994 Standards for the Exchange of Product Model Data (STEP), Part 1: Overview and Principles.
- MIL-STD-2549, Configuration Management Data Interface, 30 June 1997.
- MIL-STD-1840C, Automated Interchange of Technical Information, 26 June 1997.

CS.2.2.4 Electronic Data Interchange

Electronic Data Interchange (EDI) is a new Base Service Area specializing in the computer-to-computer exchange of business information using a public standard. EDI is a central part of Electronic Commerce (EC). EC is the paperless exchange of business information. The FIPS Pub (161-2) establishes the Federal

EDI Standards Management Coordinating Committee (FESMCC) to harmonize the development of EDI transaction sets and message standards among Federal agencies, and the adoption of Government-wide implementation conventions. The Federally approved Implementation Conventions may be viewed on the World Wide Web at:

http:// www.antd.nist.gov/fededi/l.

The DoD EDI Standards Management Committee (EDISMC) was established for the purpose of coordinating EDI standardization activities within the DoD. The EDISMC supports the development, adoption, publication, and configuration management of EDI implementation conventions for DoD. The DoD EDISMC manages the efforts of several Functional Working Groups (FWGs). The DoD FWGs have been established in the following areas: Logistics, Finance, Healthcare, Transportation, Procurement, Communications, Command and Control. EDISMC approved implementation conventions are submitted to the FESMCC for approval as Federal implementation conventions. DoD approved implementation conventions may be viewed on the World Wide Web at:

http://www-edi.itsi.disa.mil.

FIPS PUB 161-2, 22 May 1996, Electronic Data Interchange (EDI) adopts, with specific conditions, ANSI ASC X12, UN/EDIFACT and ANSI HL7.

The following standards are mandated as profiled by FIPS PUB 161-2:

- ANSI ASC X12 Electronic Data Interchange (ASC X12S 97-372 is latest edition).
- ANSI HL7 Version 2.3 (is the latest edition).
- ISO UN/EDIFACT.

CS.2.3 INFORMATION TRANSFER STANDARDS

CS.2.3.1 Additions

There are no additions for the Information Transfer Standards section

CS.2.3.2 Emerging Standards

The following standard is not mandated in this version of the JTA, but is an emerging standard for the next version of the JTA:

- IEEE 1073, Protocol for Medical Device Communications, 1996.

CS.2.4 INFORMATION MODELING, METADATA, AND INFORMATION EXCHANGE STANDARDS

There are no additions or emerging standards for the Combat Support Information Modeling, Metadata, and Information Exchange Standards section.

CS.2.5 HUMAN-COMPUTER INTERFACE STANDARDS

There are no additions or emerging standards for the Combat Support Human-Computer Interface Standards section.

CS.2.6 INFORMATION SYSTEMS SECURITY STANDARDS

EC/EDI have security services associated with ANSI ASC X12 transactions. ANSI ASC X12.58 is a description of that security but is not mandated.

CS.3 DOMAIN SPECIFIC SERVICE AREAS

There are no domain specific service areas for the Combat Support Domain.

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